

# Know Your Risk

for Heart and Blood Vessel Disease.

## Oxidized LDL (OxLDL)

### What is OxLDL?

Think of OxLDL as damaged LDL. LDL is often called the “bad” cholesterol, because high levels of LDL can lead to heart disease and heart attacks. Damaged or oxidized LDL is even more likely to invade the walls of your blood vessels and increases your risk of heart disease.

### Why check my OxLDL level?

When an apple is cut and oxygen from the air enters the cells of the apple, a substance that usually has no color turns brown. This bruised and brown coloring on the apple slice is a result of oxidation. Like the “cut” in the apple, lifestyle choices, such as a poor diet, lack of exercise, and smoking, can lead to oxidation that can damage your LDL cholesterol, and create OxLDL.

OxLDL is more likely to enter your blood vessel walls and build up over time. As this buildup of cholesterol continues to grow, it can become inflamed and damage your blood vessels. This contributes to the early stages of heart and blood vessel disease.

High levels of OxLDL may be a sign that you are not healthy and that you may be at risk for a condition, called metabolic syndrome, that can lead to diabetes or heart disease in the future. Researchers have found that people who have high levels of OxLDL are much more likely to have health problems within the next 5 years.

Your doctor may want to check your levels if you don't have healthy eating or lifestyle habits, or if you have risk factors for heart attacks, such as smoking, high blood sugar, or high cholesterol levels. Ask your doctor if this test is right for you.

### What can I do to improve my OxLDL levels?

There are a number of things you can do help keep your blood vessels healthy and lower your risk of heart disease, as well as your OxLDL levels.

- **Eat a healthy diet.** A heart-healthy, Mediterranean diet - that is low in saturated fat and cholesterol, full of high-fiber

foods (such as fresh fruits, vegetables, and whole grains), and has very little added salt and sugars - can help you control cholesterol levels, blood pressure, and blood sugar.

- **Exercise more.** Talk with your doctor about exercises that would be safe for you to do.
- **If you smoke, you should quit.** Smoking increases F<sub>2</sub>-IsoPs, damages the walls of blood vessels, and increases both heart attack and stroke risk, partly because smoking can also make clots form faster and bigger.

With heart disease being the #1 killer of Americans, it's important to develop a plan with your doctor to lower your risk of a heart attack or stroke *before* one happens.

### Additional Need-to-Knows:

The OxLDL test can be done at the same time you have your standard cholesterol test. When getting ready for the OxLDL test:

- Keep taking your medications as directed.
- Fasting is not required.

Relative Risk	What do my results mean?
<60 Low	Your result is in the desirable range, suggesting that you may have lower levels of damaged, or oxidized LDL.
≥60 Moderate/ High	You have moderate/high levels of OxLDL, suggesting that you may have damaged, or oxidized LDL, that may be building up in your blood vessels. This increases your risk for heart and blood vessel disease and may lead to a heart attack.

